ABSTRACT OF THE DISCLOSURE

An apparatus and method for adjusting the filter tap length of an adaptive equalizer using a training sequence, determining a required filter tap length by using multipath information detected from correlation values of sync symbols of a segment for data synchronization, training sequence for field synchronization and input data, and auto correlation values of the training sequence. In the case of a VSB signal, the presence or absence of a multipath detector, and the position and size thereof, can be identified from the correlation value by using a 704- symbols field sync signal. Also, the pre-/post-ghosts which are farthest from the main tap are detected using the position of a multipath detector, thereby determining the tap length of the adaptive equalizer in a variable manner. Thus, the performance of the adaptive equalizer can be improved, and the power consumption can also be reduced.